Title of Instructional Materials: Cord- Algebra I Learning in Context

Grade Level: Algebra I

Summary of Cord - Algebra I - Learning in Context

Overall Rating: ☒ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** This text is a very unbalanced approach with emphasis on skills and procedures with little or no context or mathematical relationships. One positive note about the text is that each chapter starts with a list of the some real-life scenerios where one might use what is covered in that chapter.	Important Mathematical Ideas: ☒ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Mathematical ideas are approached primarly from a skill level with little connection to context or big ideas within the lessons. Many of the new standards are taught as "Extensions" or add-ons and not integrated within the lesson.
Skills and Procedures: ☒ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** Skills and procedures are taught without conceptual understanding and rather taught as single entities used to solve a problem with specific step-by-step procedures and are practice throughd rote drill and skill (ie Chapter 3).	Mathematical Relationships: ☒ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4) **Summary / Justification / Evidence:** The skills throughout the text are taught as discrete ideas and skills without evidence of bigger ideas and relationships. Most of the student problems are without context and just include drilled practice.

Cord - Alg I
Learning in Context
- Seems to cover all concepts well
- Good examples & review throughout
- May be weaker on some exponential material

INDIANA'S EDUCATION ROUNDTABLE 2010

Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the Common Core State Standards for Mathematics

Traditional Pathway for High School: Algebra I

a project of
The Charles A. Dana Center
at the University of Texas at Austin

Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

A project of

The Indiana Education Roundtable, The Indiana Department of Education,

and

The Charles A. Dana Center at The University of Texas at Austin

2010–2011

Reviewed By: [redacted]

Title of Instructional Materials: Coord- Alg I Learning in Context

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

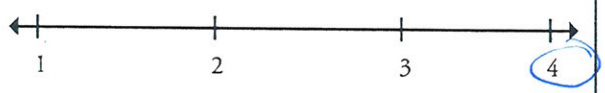
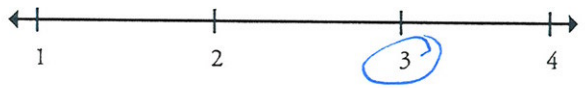
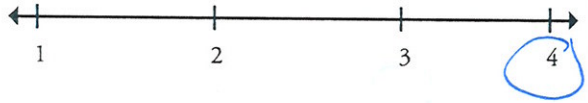
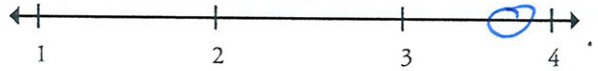
Extend the properties of exponents to rational exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define $5^{1/3}$ to be the cube root of 5 because we want (51/3)3 = $5(^{1/3})^3$ to hold, so $(5^{1/3})^3$ must equal 5.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Sup 13.3b	Important Mathematical Ideas: 1 2 3 (4) Skills and Procedures: 1 2 3 (4) Mathematical Relationships: 1 2 (3) 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

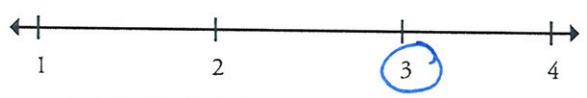
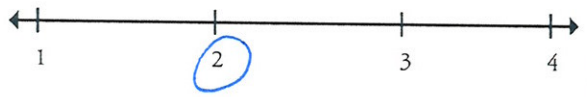
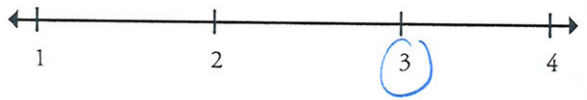
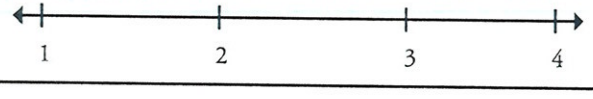
Extend the properties of exponents to rational exponents.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 13.3 Sup 13.3a 13.3b	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

The Real Number System (N-RN)

Use properties of rational and irrational numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Sup 1.1a	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** Not sure explanation was real clear where student could explain; however, it was hit upon **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.* Note: Foundation for work with expressions, equations and functions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2.1 2.2 2.3 2.4 2.5 2.6 2.7 7.2 7.3 7.4 7.5	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 3 (4) Mathematical Relationships 1 2 3 (4) **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 (4)

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
N-Q.2 Define appropriate quantities for the purpose of descriptive modeling.* Note: Foundation for work with expressions, equations and functions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Throughout	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — NUMBER AND QUANTITY (N)

Quantities (N-Q)

Reason quantitatively and use units to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
N-Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.* Note: Foundation for work with expressions, equations and functions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2.6 2.7 Math Labs throughout	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** One of the better jobs I have seen of appropriate accuracy limitations on measurement & reporting Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

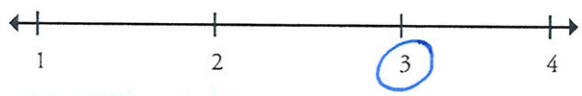
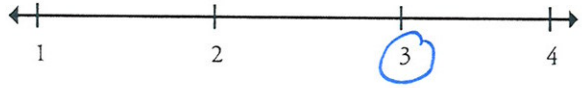
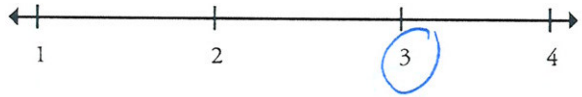
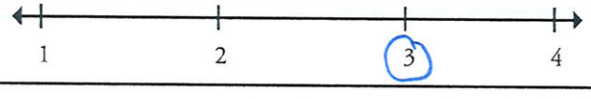
Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1a 1. Interpret expressions that represent a quantity in terms of its context.* a. Interpret parts of an expression, such as terms, factors, and coefficients. Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 1.8 ✓ ~~10.7~~ 10.1 ✓ 12.1 ~~10.2~~ ~~12.2~~ ~~10.3~~ ~~12.3~~ ~~10.4~~ ~~12.4~~ ~~10.5~~ 13.3 ~~10.6~~	Important Mathematical Ideas 1 2 3 (4) Skills and Procedures 1 2 (3) 4 Mathematical Relationships 1 2 (3) 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 (3) 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

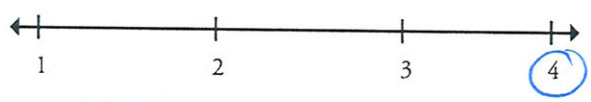
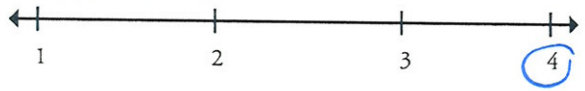
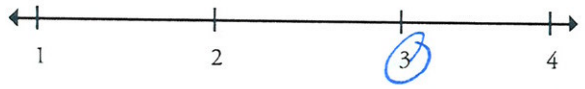
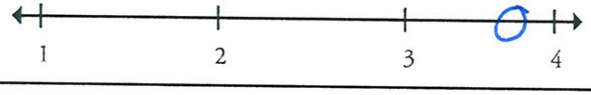
Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.1b 1. Interpret expressions that represent a quantity in terms of its context.* b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret $P(1+r)^n$ as the product of P and a factor not depending on P.* Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 10.2 – 10.7 12.2 – 12.4 13.3	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** Shows parts + ways to simplify, but not as clear on "interpret" **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Interpret the structure of expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.2 Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.* Note: Linear, exponential, quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 1.8 10.1 - 10.7 11.4 12.2 - 12.4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

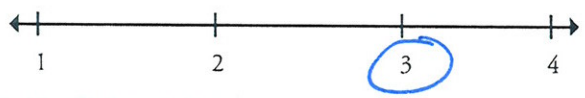
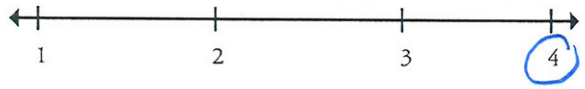
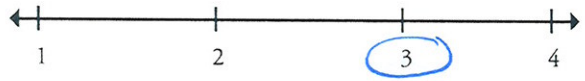
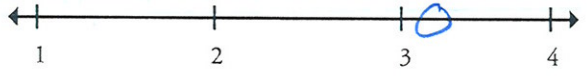
Write expressions in equivalent forms to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.3a 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* a. Factor a quadratic expression to reveal the zeros of the function it defines. Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.2 11.5 11.3 > Not what book listed!	Important Mathematical Ideas: 1 2 3 **4** Skills and Procedures: 1 2 3 **4** Mathematical Relationships: 1 2 **3** 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** ~~None~~ Overall Rating: 1 2 3 **4**

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-SSE.3b 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Seeing Structure in Expressions (A-SSE)

Write expressions in equivalent forms to solve problems.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-SSE.3c 3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression* 1.15^t *can be rewritten as* $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.* Note: Quadratic and exponential. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 12.2 - 12.4	Important Mathematical Ideas: 1 2 3 **4** Skills and Procedures: 1 2 3 **4** Mathematical Relationships: 1 2 **3** 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating: 1 2 3 **4**

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Arithmetic with Polynomials and Rational Expressions (A-APR)

Perform arithmetic operations on polynomials.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Note: Linear and quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 10.1-10.4	Important Mathematical Ideas 1 2 3 **4** Skills and Procedures 1 2 3 **4** Mathematical Relationships 1 2 3 **4** **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 **4**

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

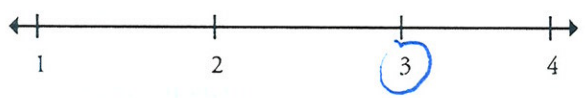
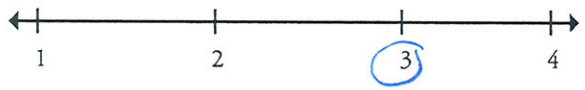
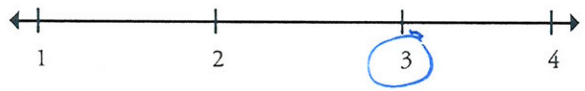
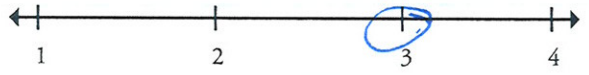
Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.** Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3.1 - 3.6 11.3 - 11.6 12.5	Important Mathematical Ideas: 1 — (2) — 3 — 4 Skills and Procedures: 1 — (2) — 3 — 4 Mathematical Relationships: 1 — 2 — (3) — 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** not creating - except for story probs - but no examples no exponentional Overall Rating: 1 — 2 — (0) — 3 — 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

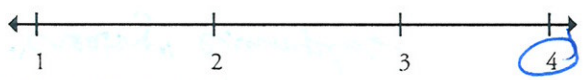
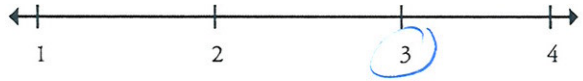
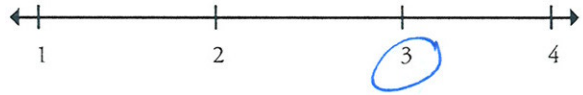
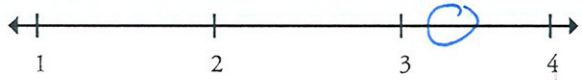
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 4.3-4.7 5.4-5.6 8.1 11.1 12.1	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Again, weaker on "creating" examples Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

Create equations that describe numbers or relationships.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.** Note: Linear (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 8e1-8.5 9.7	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Creating Equations (A-CED)

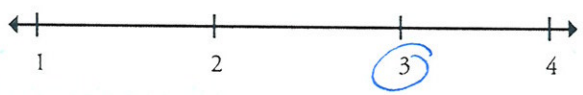
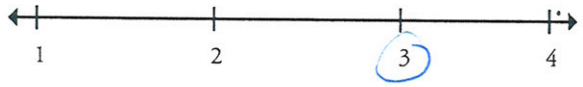
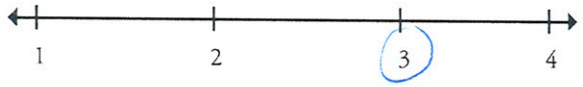
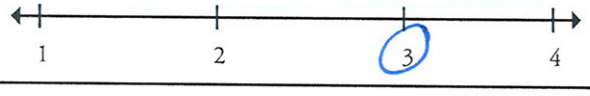
Create equations that describe numbers or relationships.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.** Note: Linear, quadratic, and exponential (integer inputs only). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3.3 3.4 3.5 4.4 Math Apps @ end of each chapter	Important Mathematical Ideas: 1 2 **3** 4 Skills and Procedures: 1 **2** 3 4 Mathematical Relationships: 1 2 **3** 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** no literal eqns. Overall Rating: 1 2 **3** 4

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

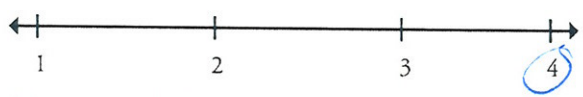
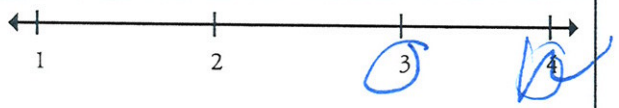
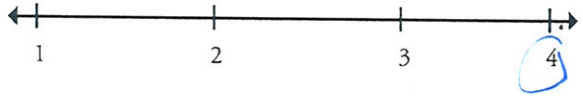
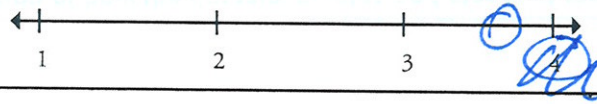
Understand solving equations as a process of reasoning and explain the reasoning.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method. Note: Master linear; learn as general principle. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3.1-3.5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

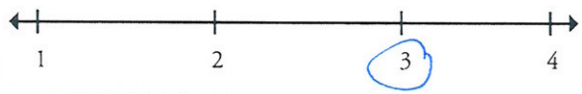
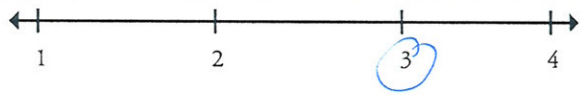
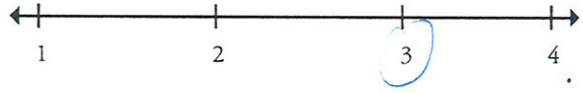
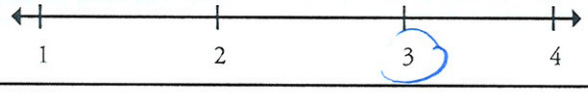
Solve equations and inequalities in one variable.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 3.1 - 3.6 9.1 - 9.5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): literal eqs weak
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

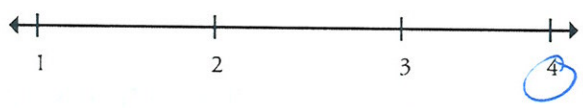
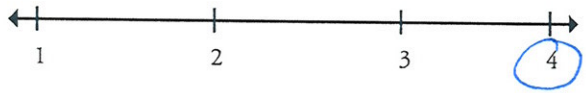
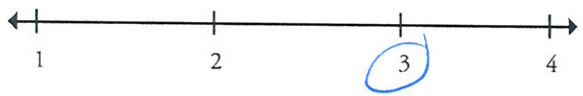
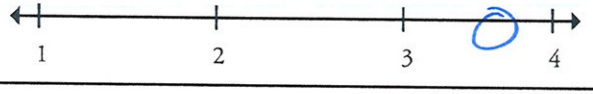
Solve equations and inequalities in one variable.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
A-REI.4a 4. Solve quadratic equations in one variable. a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.2 11.4-11.6	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

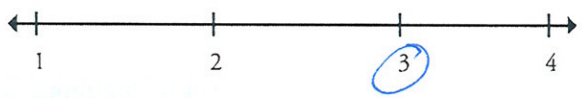
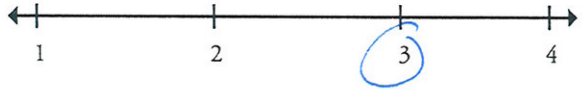
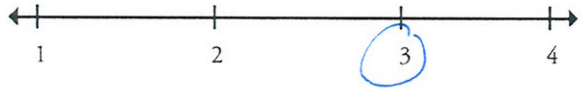
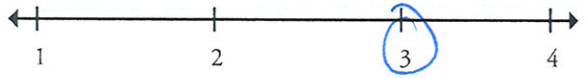
Solve equations and inequalities in one variable.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.4b 4. Solve quadratic equations in one variable. b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. Note: Linear inequalities; literal that are linear in the variables being solved for; quadratics with real solutions. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 11.2 11.4-11.6	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** complex solns Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

ALGEBRA I — ALGEBRA (A)

Reasoning with Equations and Inequalities (A-REI)

Solve systems of equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
A-REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. Note: Linear-linear and linear-quadratic. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 8.4-8.5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: CORD

(1)

Documenting Alignment to the Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

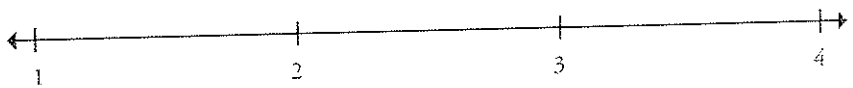
Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

CONTENT STANDARDS RUBRIC

Algebra 1

Creating Equations A -CED

Create equations that describe numbers or relationships

1. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R.*

	Development	Connections	Rigor and Depth	Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)? 4 3 2 1 ✗	Are ideas expanded to other math ideas (4) or developed independently of each other (1)? 4 3 2 1 ✗	Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)? 4 3 2 1 ✗	with Linear - equations p. 236 # 26-31 Exponential. pp. 311 but equation not given
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)? 4 3 2 1 ✗	Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)? 4 3 2 1 ✗	Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)? 4 3 2 1 ✗	Quadratic Application p. 663 end of chapter
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)? 4 3 2 1 ✗	Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)? 4 3 2 1 ✗	Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)? 4 3 2 1 ✗	

Missing or weak content from this standard

Overall for this Standard: 1

CONTENT STANDARDS RUBRIC

Algebra 1

Reasoning with Equations and Inequalities A -RE I

Understand solving equations as a process of reasoning and explain the reasoning

1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

Solve equations and inequalities in one variable

3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
4. Solve quadratic equations in one variable.

a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)2 = q$ that has the same solutions. Derive the quadratic formula from this form.

b. Solve quadratic equations by inspection (e.g., for $x2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.

	Development	Connections	Rigor and Depth	Overall/Evidence
Mathematical Ideas	Are ideas conceptually developed (4) or approached from a simple skill level (1)?	Are ideas expanded to other math ideas (4) or developed independently of each other (1)?	Do ideas require extension of important ideas and the use of multiple approaches (4) or only using procedures and memorization (1)?	3.1 3.2 3.3 3.4 3.5
	4 3 2 1 (1)	4 3 2 1 (1)	4 3 2 1 (1)	
Skills and Procedures	Are skills and procedures integrated with math ideas (4) or are they the primary focus of the lesson (1)?	Are skills and procedures connected to other ideas (4) or treated as isolated skills with no connection (1)?	Are skills and procedures critical to the application of other math ideas (4) or are they practiced without conceptual development (1)?	
	4 3 2 1 (1)	4 3 2 1 (1)	4 3 2 1 (1)	
Mathematical Relationships	Are math relationships evident to build understanding (4) or appear as a series of independent skills (1)?	Are relationships integrated with other math ideas (4) or are problems focusing on drill only(1)?	Do relationships require a broad use of math (4) or only require the use of skills and procedures (1)?	
	4 3 2 1 (1)	4 3 2 1 (1)	4 3 2 1 (1)	

Missing or weak content from this standard

Overall for this Standard: 1